

## **REMARKS**

### **A. Overview**

Prior to this Amendment, the present application includes claims 12-54. With this Amendment, Applicants have amended claims 12, 18, 20, 28, 36, 39, 43, and 50 and cancelled claims 19 and 38 without prejudice or disclaimer of subject matter. Further, Applicants have added claims 55-67. As such, claims 12-18, 20-37, and 39-67 are pending in this application.

### **B. Claim Rejections Under 35 U.S.C. §112**

Referring to numbered paragraph 1 of the Office Action, claim 38 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite. With this Amendment, Applicants have cancelled claim 38 without prejudice or disclaimer of subject matter. As such, Applicants submit that this rejection is now moot.

### **C. Claim Rejections Under 35 U.S.C. §102**

Referring to numbered paragraph 2 of the Office Action, claims 12, 14-18, 20, 22-26, 28, 30-34, 36, 37, 39-42, 46-48, and 51-54 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,531,126 to Drahm (“Drahm I”). The rejected claims include independent claims 12, 20, 28, and 36.

#### **Independent Claim 12:**

Independent claims 12 is amended to recite:

... a transducer assembly... with an electromechanical excitation arrangement acting on said at least one flow tube, said excitation arrangement driving said flow tube to oscillate in a bending mode and in a torsional mode simultaneously with said bending mode oscillations for producing viscous friction within the fluid, and with a sensor arrangement, responsive to oscillations of the flow

tube, for generating at least one sensor signal, representative of oscillations of the flow tube ...

*Drahm '126 does not disclose, teach or suggest an excitation arrangement that “acts on... at least one flow tube... driving said flow tube to oscillate in a bending mode and in a torsional mode simultaneously with said bending mode oscillations” (emphasis added).*

#### **Independent Claim 20:**

Independent claim 20 is amended to recite:

a transducer assembly...with an evaluating circuit which derives from said at least one sensor signal and from the excitation current a viscosity value representative of the viscosity of the fluid.

*Drahm '126 teaches that the viscosity value is derived from a signal provided by the driver circuit and representative of the vibration amplitude of the dummy tube (col 8, ll. 56-67). This signal is not the same as the claimed excitation current. The claimed excitation current is generated by the excitation circuit and feeds the excitation arrangement to cause the flow tube to oscillate in a bending mode (see claim 20).*

#### **Independent Claim 28:**

Independent claim 28 is amended to recite:

... a transducer assembly with a single flow tube being inserted into the pipe ... and with a sensor arrangement including an electro-dynamic sensor, responsive to oscillations of the flow tube, for generating at least one sensor signal, representative of a velocity of lateral deflections of the flow tube ...

*Drahm '126 does not disclose, teach or suggest a sensor arrangement “including an electro-dynamic sensor” for generating at least one sensor signal, “representative of a velocity of lateral deflections of the flow tube.”*

**Independent Claim 36:**

Independent claim 36 is amended to recite:

A method of measuring a viscosity and a density of a fluid flowing through a pipe, said method comprising the steps of ... using said at least one sensor signal and said excitation current to determine a viscosity value representative of said viscosity to be measured, and using said at least one sensor signal to determine a density value representative of said density to be measured.

*Drahm '126* does not disclose, teach or suggest the claimed method, which includes the steps of using the sensor signal and excitation current to determine a viscosity value representative of the viscosity to be measured, and using the sensor signal to determine a density value representative of said density to be measured.

**D. Claim Rejections Under 35 U.S.C. §103**

Referring to numbered paragraph 3 of the Office Action, claims 19, 27, and 35 are rejected under 35 U.S.C. §103(a) as being unpatentable over Drahm in view of European Patent No. EP 849,568A1 to Drahm ("Drahm II").

Claim 19 is cancelled without prejudice or disclosure of the subject matter contained therein. Claim 27 depends from independent claim 20, which Applicants submit is patentable as discussed above. Claim 25 depends from claim 28, which Applicants submit is patentable as discussed above.

Referring to numbered paragraph 4 of the Office Action, claims 13, 21, 29, and 43 are rejected under 35 U.S.C. §103(a) as being obvious over Drahm I in view of U.S. Patent No. 5,661,232 to Van Cleve ("Van Cleve").

Claim 13 depends from independent claim 12, claim 21 depends from independent claim 20, claim 29 depends from independent claim 28, and claim 43 depends from

independent claim 36. Applicants submit that these claims are also patentable for the reasons discussed above.

**E. Double Patenting**

Claims 12-17, 19-26, 28-34, and 36-53 are rejected under the traditionally created doctrine of obviously type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,651,513 to Wenger (“Wenger”). Referring to numbered paragraph 6 of the Office Action, claims 18, 27, and 35 are rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1-12 of Wenger in view of Drahm II.

The instant application and the Wenger patent are commonly owned by Endress + Hauser Flowtec AG. The assignment of Wenger to Endress + Hauser Flowtec AG is recorded at Reel/Frame 014505/0029. Included with this response is a Terminal Disclaimer, disclaiming the terminal part of the statutory term of any patent granted on the instant application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. §154 to §156 and §173 of Wenger. By filing the above Terminal Disclaimer, the Applicants are not acquiescing in the examiner’s determination of double patenting, but rather are expediting the issuance of a patent from the instant application.

Accordingly, Applicants submit that the above obviousness type doubling patenting rejections are now moot.

**F. New Claims**

With this Amendment, Applicants have added new claims 55-67. Claims 55 and 56 depend from claim 20. Claims 57 and 58 depend from claim 28. Claims 59-67 are directed to a vibration meter for measuring a viscosity of a fluid flowing through a pipe. Consideration and allowance of these claims is respectfully requested.

**G. Final Remarks**

Claims 12-18, 20-37, and 39-67 are believed to be in condition for allowance. Such allowance is respectfully requested.

If necessary, please consider this a Petition for Extension of Time to affect a timely response. Please charge any additional fees or credits to the account of Bose McKinney & Evans LLP, Deposit Account No. 02-3223. In the event that there are any questions related to these amendments or to the application in general, the undersigned would appreciate the opportunity to address those questions directly in a telephone interview to expedite the prosecution of this application for all concerned.

Respectfully submitted,

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